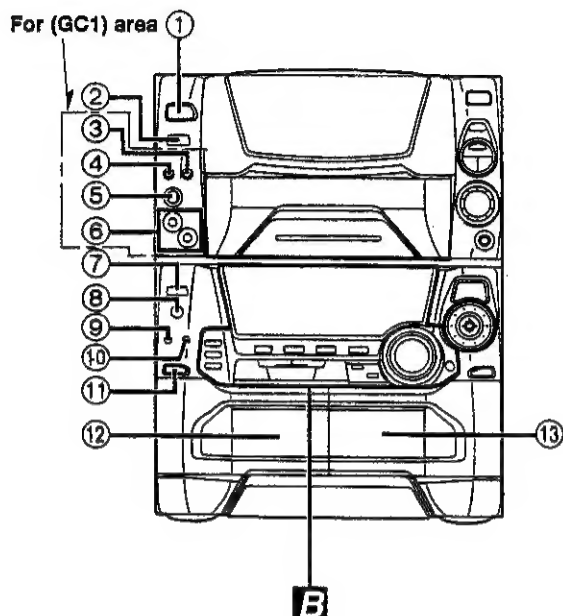# Panasonic

Operation Guide

MODEL NUMBER
AK95

● This operations is provided to indicate the main differences between the original model and this subsequent model.
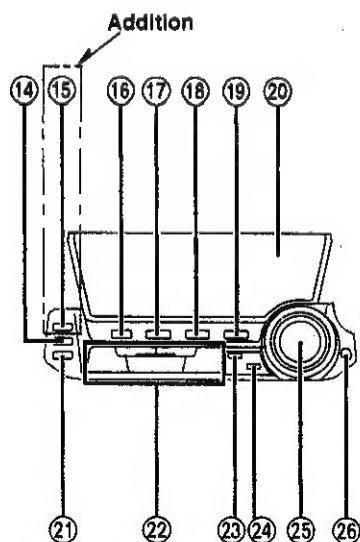
■ Location of Controls

A

For (GC1) area ①

B

B

Addition

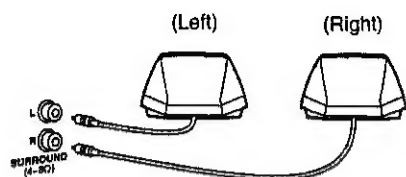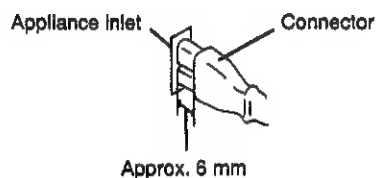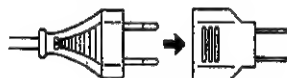| No.	Name
	Main unit A
①	**Power "STANDBY ⏻/ON" switch (POWER, STANDBY ⏻/ON)** Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
②	**Single play button (SINGLE ▶)**
③	**Echo button (ECHO)**
④	**Karaoke button (KARAOKE)**
⑤	**Microphone volume control (MIC VOL)**
⑥	**Microphone jacks (MIC1, MIC2)**
⑦	**DOLBY PRO LOGIC on/off button (DOLBY PRO LOGIC)**
⑧	**Center mode select button (CENTER MODE)**
⑨	**Play timer/record timer button (⏲ PLAY/⏲ REC)**
⑩	**Clock/timer button (CLOCK/TIMER)**
⑪	**Deck 1 open button (DECK 1, ▲ OPEN)**
⑫	**Deck 1 cassette holder**
⑬	**Deck 2 cassette holder**
	Center console B
⑭	**Display select/demonstration button (-DISPLAY/-DEMO)**
⑮	**Dolby NR button (DOLBY NR)**
⑯	**AUX button (AUX)**
⑰	**Tape/deck select button (TAPE, DECK 1/2)**
⑱	**CD button (CD)**
⑲	**Tuner/band select button (TUNER, BAND)**
⑳	**Display panel**
㉑	**Reverse mode select button (REV MODE)**
㉒	**Basic operating buttons** Functions change according to the source.
㉓	**Recording start/stop button (● REC/STOP)**
㉔	**Tape edit button (TAPE EDIT)**
㉕	**Volume control (VOLUME)**
㉖	**Super woofer on/off button (SUPER WOOFER)**

A

Main unit (continued) A

No.	Name
①	CD rack panel
②	CD rack panel open button (OPEN)
③	CD MANAGER button (CD MANAGER)
④	Disc/track select button/indicator (DISC/TRACK)
⑤	Text edit button (TEXT EDIT)
⑥	Text mode select button (TEXT MODE)
⑦	Jog dial (JOG)
⑧	Headphone jack (PHONES)
⑨	Acoustic image equalizer display (AI EQ)
⑩	Sound equalizer control/indicator (SOUND EQ)
⑪	Deck 2 open button (DECK 2, ▲ OPEN)

Remote control B

Buttons such as ⑫ function in exactly the same way as the buttons on the main unit.

No.	Name
⑫	Power button (POWER)
⑬	Numeric buttons
⑭	Program button (PROGRAM)
⑮	Cancel button (CANCEL)
⑯	Input selection buttons (AUX, TAPE, CD, TUNER)
⑰	Channel select button (CH SELECT)
⑱	DOLBY PRO LOGIC on/off button (□□ PRO LOGIC)
⑲	Muting button (MUTING)
⑳	◄/∨ button (◄/∨)
㉑	Sleep button (SLEEP)
㉒	Equalizer button (EQ)
㉓	Super woofer on/off button (S. WOOFER)
㉔	Disc button (DISC)
㉕	Random button (RANDOM)
㉖	Repeat button (REPEAT)
㉗	Channel level select buttons (− CH LEVEL +)
㉘	Test button (TEST)
㉙	I◄◄/◄◄ ►►/►►I buttons (I◄◄/◄◄ ►►/►►I)
㉚	►/II/∧ button (►/II/∧)
㉛	Stop button (■)
㉜	Volume buttons (− VOLUME +)

B

5

(Left)   (Right)

L
R
SURROUND
(4-8Ω)

6 [For GC1 area]

230
240 V

VOLT ADJ

7

Appliance inlet   Connector

Approx. 6 mm

A [For GC1 area]

5 Connect the surround speakers.

Note
If only one of the surround speakers is connected, no sound will come out. Be sure to connect both speakers.

6 Set the voltage. [For GC1 area]
Use a flat-head screwdriver to turn the voltage selector on the rear panel to the appropriate position for the area in which this system is used.
If the power supply in your area is 115 V or 120 V, please set the voltage selector as follows:
• For 115 V: Set to 110 V.
• For 120 V: Set to 127 V.

7 Connect the AC power cord.
If the power plug does not fit your socket, use the power plug adaptor (included). A
Insertion of connector
Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing.
However there is no problem using the unit.

■ Listening to tapes
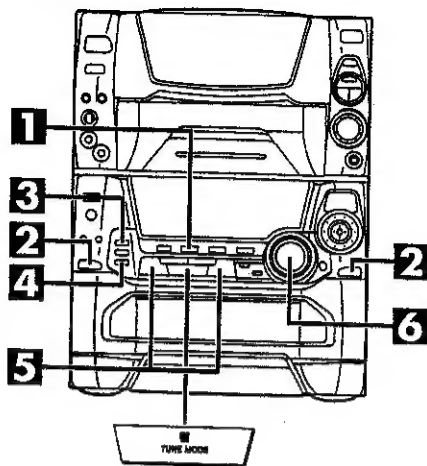
Types of tapes which can be played correctly:
The unit automatically identifies the type of tape.

|	
NORMAL POSITION/TYPE I	O
HIGH POSITION/TYPE II	O
METAL POSITION/TYPE IV	O

You can use either deck 1 or deck 2 for tape playback.

1 Press TAPE.
The power will come on automatically.

2 Press DECK 1 ▲ OPEN or DECK 2 ▲ OPEN and insert the tape.
Insert the tape with the exposed tape facing down.
Close the holder by hand.

3 Press DOLBY NR. [Addition]
You have to turn DOLBY NR ON/OFF according to the type of recording you made.
Every time you press the button: □□ NR→(OFF)
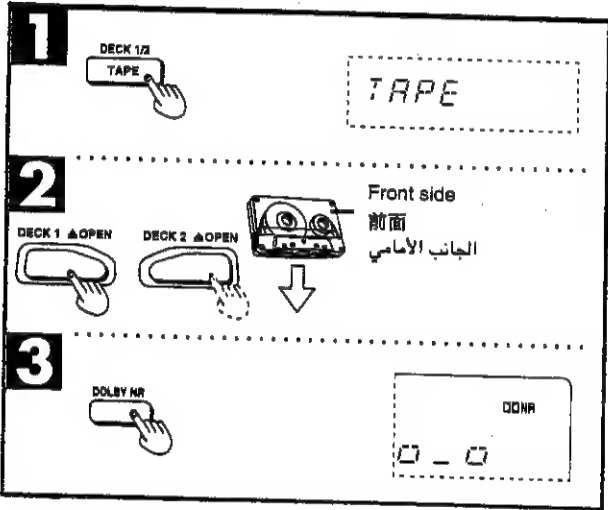
■ Singing along with KARAOKE

A [Addition]
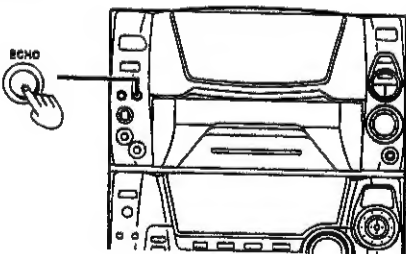
**To adjust the reverberation sound
(only when you connect the microphone) A**

Press ECHO to adjust the reverberation sound.
Each time you press the button, the display will change as follows:
ECHO 1→ECHO 2→ECHO 3→ECHO 4
└──────OFF (ECHO off)←──────┘

You can adjust the reverberation sound within the range of ECHO 1 to ECHO 4.

■ Accessories

- AC power supply cord .... 1 pc.
  (SJA172)

- Remote control transmitter .... 1 pc.
  (RAK-CH938WK)

- FM indoor antenna .... 1 pc.
  (RSA0006-J)

- AM loop antenna set (RSA0022)
  AM loop antenna .... 1 pc.
  AM antenna holder .... 1 pc.

- Batteries .... 2 pcs.
  (R6/LR6, AA size, UM-3)
  Note: These are available on sales route.

■ Location of Controls

A

B
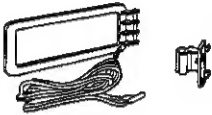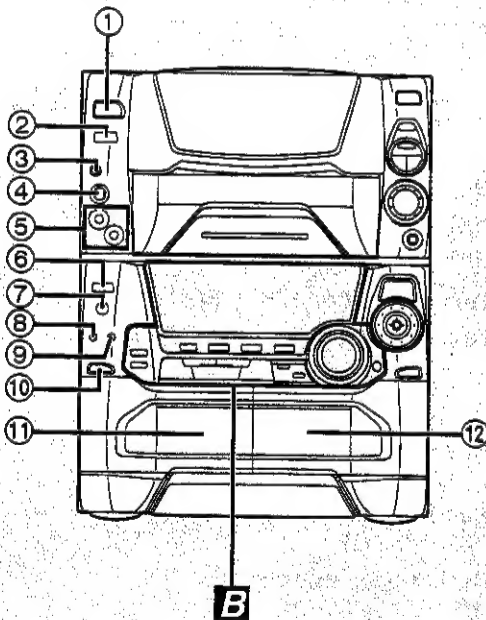
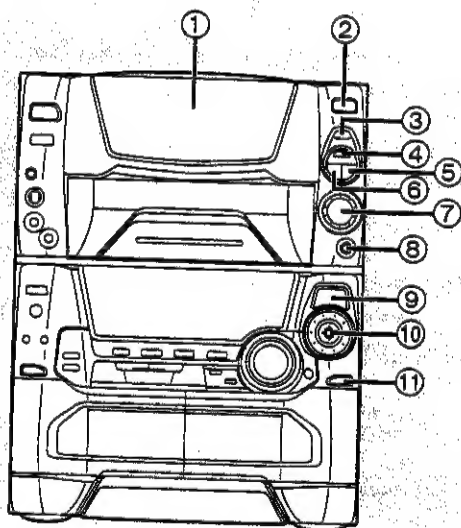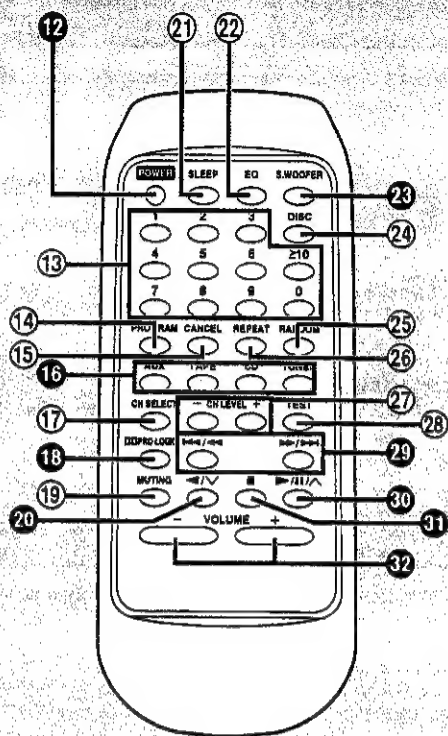| Main unit A	
No.	**Name**
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③	**Karaoke button (KARAOKE)**
④	**Microphone volume control (MIC VOL)**
⑤	**Microphone jacks (MIC1, MIC2)**
⑥	**DOLBY PRO LOGIC on/off button (DOLBY PRO LOGIC)**
⑦	**Center mode select button (CENTER MODE)**
⑧	**Play timer/record timer button (⊘ PLAY/⊘ REC)**
⑨	**Clock/timer button (CLOCK/TIMER)**
⑩	**Deck 1 open button (DECK 1, ⏏ OPEN)**
⑪	**Deck 1 cassette holder**
⑫	**Deck 2 cassette holder**

B

Center console B

⑬ Display select/demonstration button
(-DISPLAY/-DEMO)

⑭ AUX button (AUX)

⑮ Tape/deck select button
(TAPE, DECK 1/2)

⑯ CD button (CD)

⑰ Tuner/band select button
(TUNER, BAND)

⑱ Display panel

⑲ Reverse mode select button
(REV MODE)

⑳ Basic operating buttons
Functions change according to the source.

㉑ Recording start/stop button
(● REC/STOP)

㉒ Tape edit button (TAPE EDIT)

㉓ Volume control (VOLUME)

㉔ Super woofer on/off button
(SUPER WOOFER)

A

Main unit (continued) A

No.	Name
①	CD rack panel
②	CD rack panel open button (OPEN)
③	CD MANAGER button (CD MANAGER)
④	Disc/track select button/indicator (DISC/TRACK)
⑤	Text edit button (TEXT EDIT)
⑥	Text mode select button (TEXT MODE)
⑦	Jog dial (JOG)
⑧	Headphone jack (PHONES)
⑨	Acoustic image equalizer display (AI EQ)
⑩	Sound equalizer control/indicator (SOUND EQ)
⑪	Deck 2 open button (DECK 2 ▲ OPEN)

B

Buttons such as ⑫ function in exactly the same way as the buttons on the main unit.

⑫ Power button (POWER)

⑬ Numeric buttons

⑭ Program button (PROGRAM)

⑮ Cancel button (CANCEL)

⑯ Input selection buttons
(AUX, TAPE, CD, TUNER)

⑰ Channel select button (CH SELECT)

⑱ DOLBY PRO LOGIC on/off button
(□□ PRO LOGIC)

⑲ Muting button (MUTING)

⑳ ◄/∨ button (◄/∨)

㉑ Sleep button (SLEEP)

㉒ Equalizer button (EQ)

㉓ Super woofer on/off button (S. WOOFER)

㉔ Disc button (DISC)

㉕ Random button (RANDOM)

㉖ Repeat button (REPEAT)

㉗ Channel level select buttons
(– CH LEVEL +)

㉘ Test button (TEST)

㉙ I◄◄/◄◄ ►►/►►I buttons
(I◄◄/◄◄ ►►/►►I)

㉚ ►/II/∧ button (►/II/∧)

㉛ Stop button (■)

㉜ Volume buttons (– VOLUME +)

■ Connections

(Right) (Left)

1
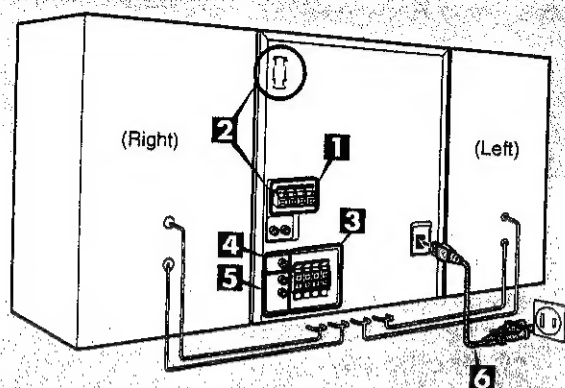
Adhesive tape

FM indoor antenna

AM ANT FM ANT
EXT LOOP GND 75 Ω

○
✗

2

①

Antenna holder

②

AM ANT FM ANT
EXT LOOP GND 75 Ω

AM loop antenna

3

HIGH LOW

Red (+)

Gray (+)

Black (−)

Bule (−)

SPEAKERS
HIGH LOW

4

CENTER
(8Ω)

5

SURROUND L
(4-8Ω) R

● Plug the AC power cord into a household AC outlet only after all other connections have been made.
● To prepare the FM indoor antenna, the AM loop antenna wire and speaker cords, twist the vinyl cover tip and pull off.

1 Connect the FM indoor antenna.
Tape the antenna to a wall or column, in a position where radio signals are received with the least amount of interference.

Note
For best reception sound quality:
An FM outdoor antenna is recommended.

2 Connect the AM loop antenna.
After attaching the antenna, turn on the system and tune in a broadcast station. Then, turn the antenna to the angle of best reception and least interference.

3 Connect the front speakers.
Connect each end of the speaker cables to the terminal lever of the same color.

When speakers are connected to the low and high terminals on the back of the main unit
They are designed to have a combined impedance of 6Ω.
Be sure to use only the speakers supplied.

Impedance

HIGH LOW

6Ω

Combined
impedance

100 Hz 1 kHz Frequency
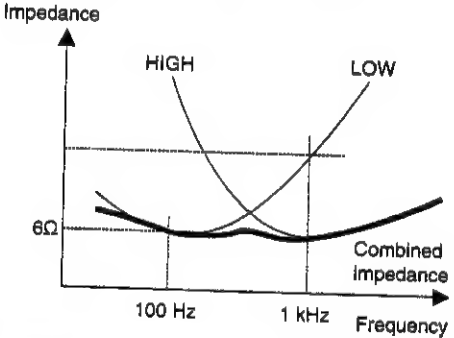
Caution
● Never use speakers other than those supplied. For instance, if you connect speakers with an impedance of 6Ω each and plug them into the low and high terminals, you will only have a combined impedance of 3Ω.
● To prevent damage to circuitry, never short-circuit positive (+) and negative (−) speaker wires.

4 Connect the center speaker.

5 Connect the surround speakers.
Note
If only one of the surround speakers is connected, no sound will come out. Be sure to connect both speakers.

6 Connect the AC power cord.

■ Listening to Radio Broadcasts
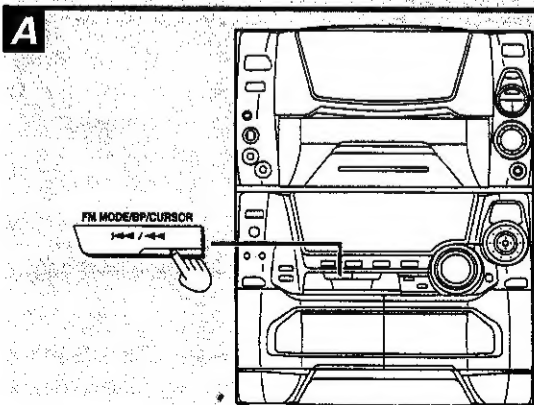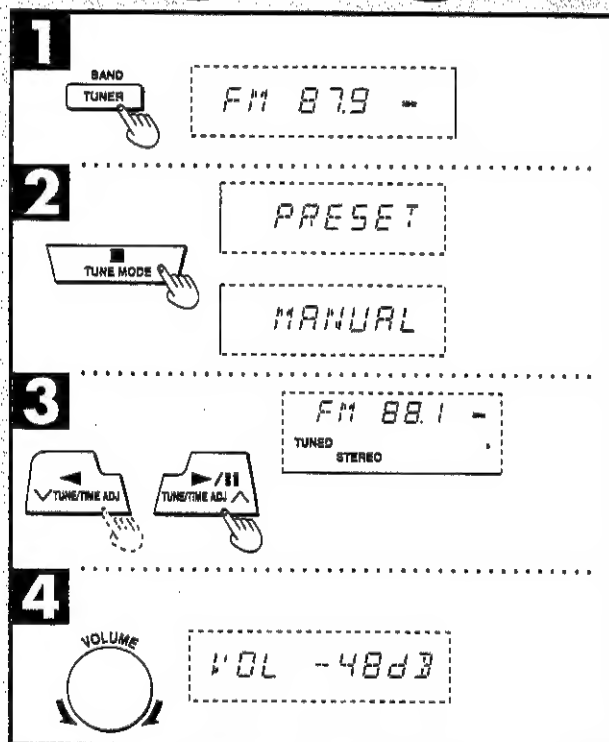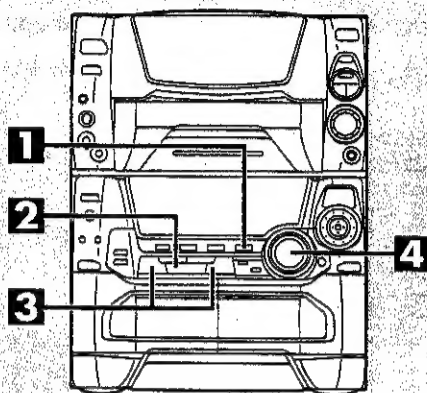
1 Press TUNER BAND to select band.
The power will come on automatically.
Every time you press the button; "FM"←→"AM".

2 Press TUNE MODE to select "PRESET" or "MANUAL".
Every time you press the button; "MANUAL"←→"PRESET".

PRESET: For preset stations
MANUAL: For non-preset stations

3 Press ∨ or ∧ to select the desired broadcast.
"STEREO" lights when an FM stereo broadcast is being received. "TUNED" lights when you precisely tune in a station.

4 Adjust the volume level.

Auto tuning

Auto tuning is an easy way to tune in non-preset stations in the manual mode.

Hold down either ∨ or ∧, and release the button when the frequency starts scrolling.
The radio will stop automatically on the first station it picks up.
●When there is outside interference, the radio sometimes stops on a certain frequency where no station is broadcasting.

To stop auto tuning
Press either ∨ or ∧ again.

If noise is excessive in the FM stereo mode A

Press FM MODE/BP. ("MONO" will light up.)
Sound will be produced in monaural, but this also reduces noise.
Press the button again to cancel. "MONO" will go out.

Normally, you'll want to listen in stereo, so leave "MONO" off. This way, you can listen to stereo broadcasts in stereo, and monaural broadcasts in mono.

You can preset an FM station in monaural by following the steps under "Presetting only your favorite stations". After selecting the station in step 1, select "MONO" with FM MODE/BP, then continue with steps 2 and 3.

Note
●If you preset stations in memory, you can tune in a preset station by simply selecting the preset channel with the numeric buttons on the remote control.
1. Press TUNER on the remote control.
2. Press the numeric button(s) to select the desired preset channel.
To select a two-digit channel:
Press ≧10 and then the two numbers you want within 10 seconds or so.
●Sound is momentarily interrupted if you load/unload tapes while listening to an AM broadcast.
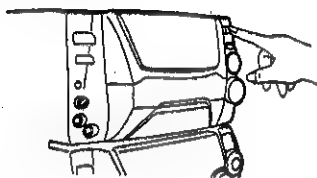
■ Listening to CDs

Setting/Removing CDs

You can set and remove CDs while a CD is playing.

How to set CDs
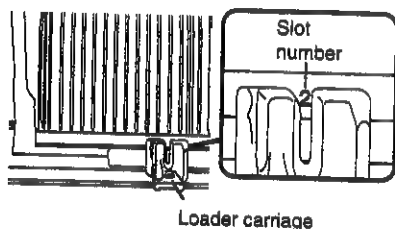
1. Open the rack panel.

Note
Except when setting or removing CDs, keep hands out of the changer while open. You could injure yourself if somehow entangled in the internal mechanism.

2. Slide the loader carriage to the slot you want.

Note
The loader carriage has a LOCK position (when the lever is down) and a RELEASE position (when the lever is up). When you slide the loader carriage to select the slot you want, make sure it is in the RELEASE position.
You can read the numbers between the prongs as shown below.

Slot number

Loader carriage

Slot No. 0 (SINGLE) is reserved for single CD play.

3. ① Lower the lever on the loader carriage and set the CD in the groove with the label facing to the right.
② Raise the lever.

Label side
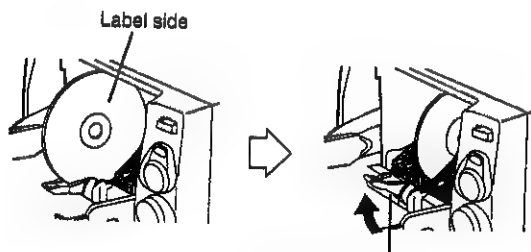
Raise the lever.

4. Close the rack panel gently.
You will hear a catching sound when the rack panel closes.
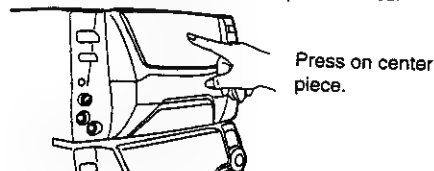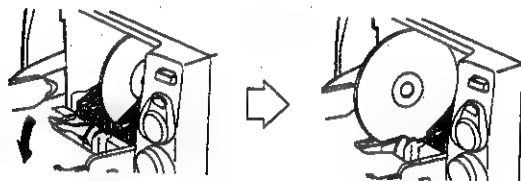
Press on center piece.

How to remove CDs

1. Open the rack panel.

2. Slide the loader carriage to the slot you want.

Note
Do not slide the loader carriage when the lever is down.
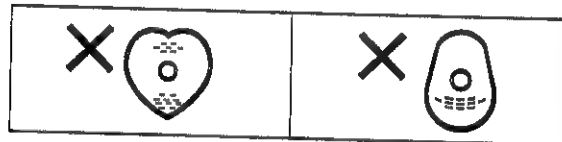
3. Push the end of lever down.
The CD rolls out into the loader carriage.
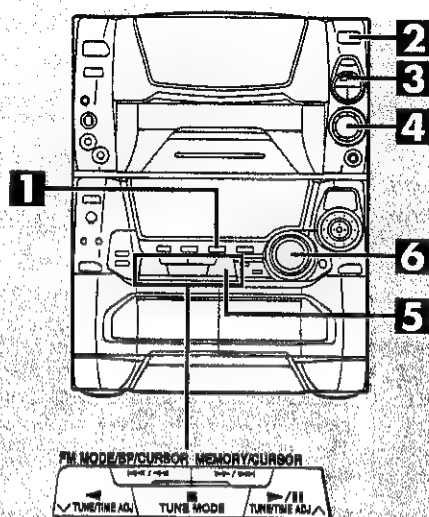Remove the CD now.

To prevent damage

Always observe the following points.
● Never load more than one CD in any given slot.
● Do not use 3″ (8 cm) CDs fitted with expander rings.
● Do not put anything other than CDs in the changer.
● Do not set a CD in the slot of the CD being played (slot flashes).
● Sometimes the rack panel cannot be opened while a CD is playing. Wait until it can.
● Do not open the CD front panel and press the eject button when "SEARCH" appears in the display.
● Do not use cleaning CDs or CDs which are badly warped or cracked.
● Set the system on a flat, level surface.
Do not set it on top of magazines, inclined surfaces, etc.
● Always unload all CDs before moving the system.
● Do not use CDs with poorly attached labels or stickers.
Adhesive protruding from underneath stickers or left over from peeled off stickers can cause the system to malfunction.
● Do not use irregular shape CDs.

FM MODE/SP/CURSOR MEMORY/CURSOR

◄ ∨ TUNE/TIME ADJ \ ■ TUNE MODE ►/II TUNE/TIME ADJ ∧

1

CD

NO DISC

2

OPEN

3

DISC/TRACK

4

JOG

DISC 33

5

Track number

►/II
TUNE/TIME ADJ ∧

33 1 0:01

CD number in play   Elapsed playing time
(Of current track number)

6

VOLUME

VOL -48dB

A

Current CD   Total playing time

33 16 48:52

Total number of tracks   ▷

Sequential play

1 **Press CD.**
The power will come on automatically.

2 **Set CDs in the rack.**

3 **Press DISC/TRACK to select the CD selection mode.**
(The indicator illuminates with a green color.)

4 **Turn JOG to select the desired CD number.**

5 While the CD number is flashing (approx. 10 seconds)
Press ►/II/∧. (Play will begin.)
The changer will play all CDs up through the one before the CD you started with, and it will stop automatically after playing the last track on it.

Note
If you selected an empty slot in step 4, the changer will search for the next slot with a CD in it and sequential play will begin from there.

6 **Adjust the volume level.**

To stop the CD play
Press ■.

To select a disc with the remote control
① Press DISC.
② while "—" is flashing (approx. 10 seconds)
Press the numeric button(s) to select the desired CD.
To select a two-digit CD
Press ≥10 and then the two numbers you want within 10 seconds or so.
For example
CD no. 20: ≥10→2→0
CD no. 35: ≥10→3→5

When " ▷ " appears on the display 🅐
This indicates there are 13 or more tracks on the disc in the play position.

To pause	Press ►/II/∧ during playback. To resume playback, press ►/II/∧.
To search forward/ backward (Search)	Hold down I◄◄/◄◄ (backward) or ►►/►►I (forward) during playback or pause mode.
To skip forward/ backward	Press I◄◄/◄◄ (backward) or ►►/►►I (forward) during playback or pause mode.

Note
• If you leave the front panel open while a CD is playing, the changer will stop when the CD finishes.
• During random play, you cannot skip to tracks which have already been played.
• During program play or random play, you cannot search forward or backward only within the current track.
• During program play, skipping is always in the programmed order, whether forward or backward.
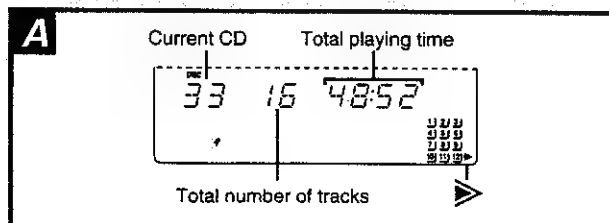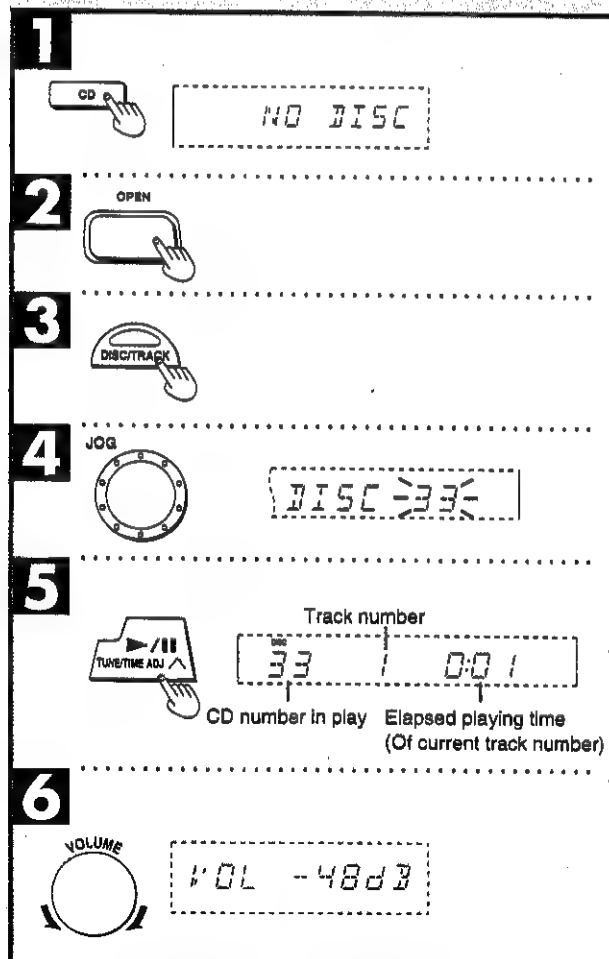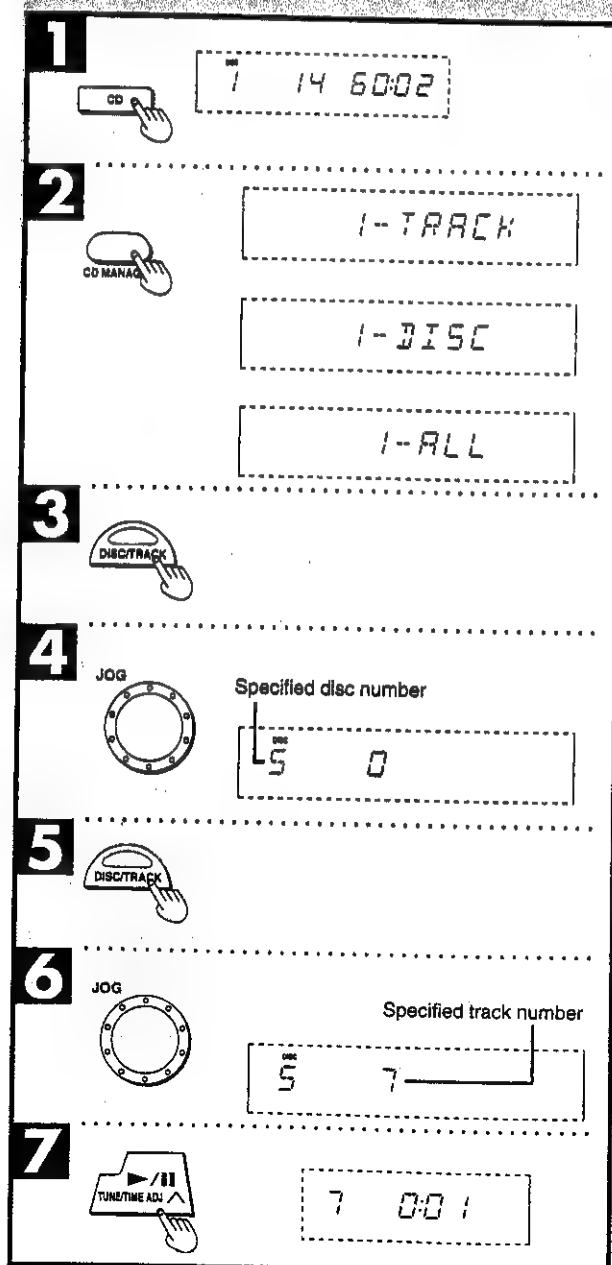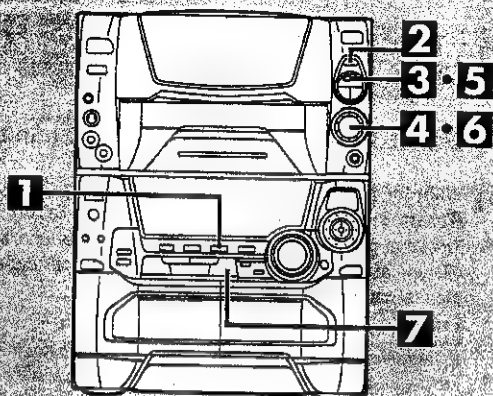
To listen to special CDs and tracks (CD MANAGER function)

This function makes it easier for you to select special CDs and tracks from amongst those loaded in the player.

You can use this function to make recordings as well.

1 Press CD.
Ensure CD is stopped.

2 Press CD MANAGER to select the desired mode.
Every time you press the button;

1-TRACK→1-DISC→1-ALL
└──────NORMAL←──┘
          (OFF)
1-TRACK: Only one particular track is played.
1-DISC: The tracks on only one particular disc are played.
1-ALL: The same track numbers on each of the CDs are played in succession.
(NORMAL: The original display is restored in about 3 seconds.)

3 Press DISC/TRACK to select the CD selection mode.
(The indicator illuminates with a green color.)

4 Turn JOG to select the desired CD number.
Note
This step is not required if 1-ALL was selected in step 2.

5 Press DISC/TRACK to select the track selection mode.
(The indicator illuminates with an orange color.)

6 Turn JOG to select the desired track number.
Note
This step is not required if 1-DISC was selected in step 2.

7 Press ▶❚❚/∧.
The selected track will start.

To stop play
Press ■.

When playback ends
"NORMAL" will appear on the display for about 3 seconds, then the CD MANAGER function will turn OFF automatically.

During play in the 1-ALL mode:
● it is not possible to skip back to a CD whose track has already been played.
● If a CD does not have the designated track number, it is skipped and play continues.

Note
You can use the repeat function and random play at the same time. However, in 1-TRACK mode, random play is not available.
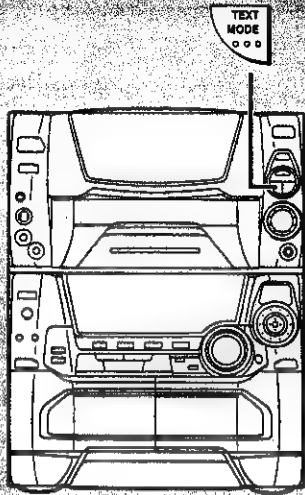
CD-TEXT function

This convenient function displays the names of albums and tracks for you. The function also works for normal discs, not just discs that have the information installed on them (CD-TEXT discs).

Note
- Names of tracks cannot be displayed with normal CDs.
- The information on CD-TEXT discs is automatically read when play starts. With normal discs it is necessary to enter the album name manually. Enter the information before playing the disc.

To see the name of the CD or track

Press TEXT MODE.
The name of the CD or track scrolls across the screen in the following ways each time the button is pressed.

In the stop mode A

Album title⟶Total playing time

In the play mode B

Song title⟶Album title
⟶Elapsed playing time (of current track)⟵

Note
- In the stop mode up to 32 characters per piece of information will be displayed. During play, the album title or song title is displayed in its entirety even if it is longer than 32 characters.
- Song titles are not displayed after a certain number of tracks if there are many tracks on the disc or if titles are exceptionally long.
- If you search during play, the display automatically switches to show the elapsed time.
- If you skip during play, the name of the track scrolls across the screen, then the display switches back to the previous display.
- Information that has been entered will be stored in the memory until either a different CD-TEXT disc is played or the album name is changed manually.

A
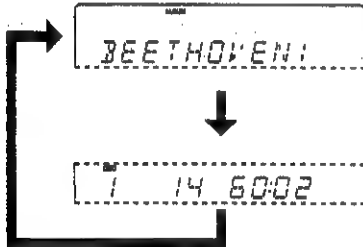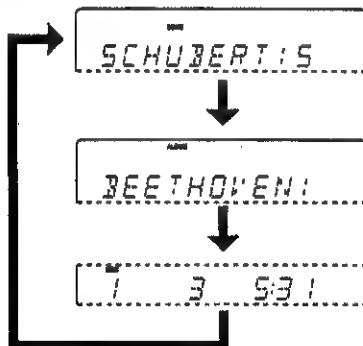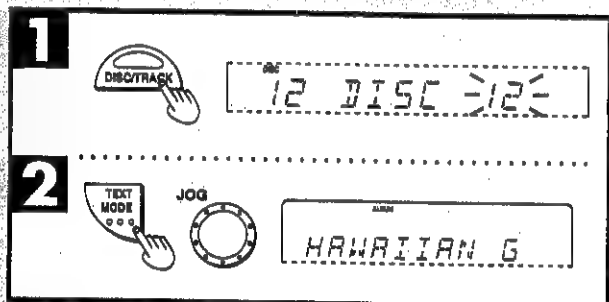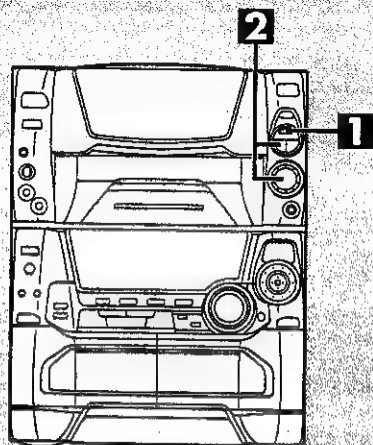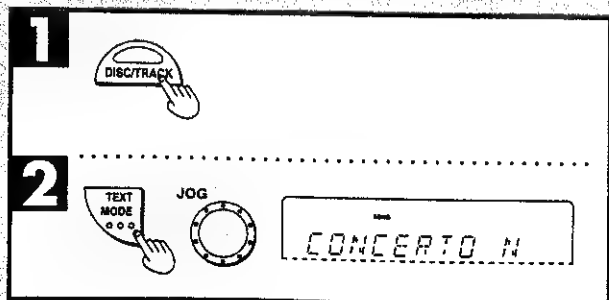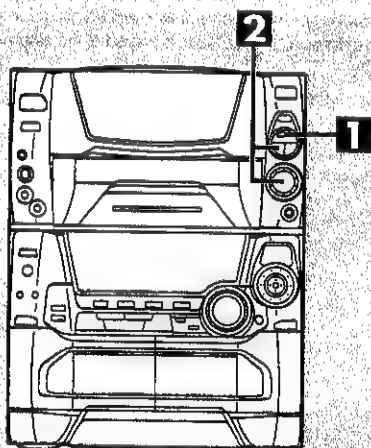
CD-TEXT function

To find a specific CD (Album search) A

If the information for an album is in the memory, you can search for it by name.

1 Press DISC/TRACK to select the CD selection mode.
(The indicator illuminates with a green color.)

2 Press TEXT MODE to select "ALBUM", and turn JOG to select the desired album title.

To playback the CD
Press ▶/ІІ/∧ before the album name stops flashing.
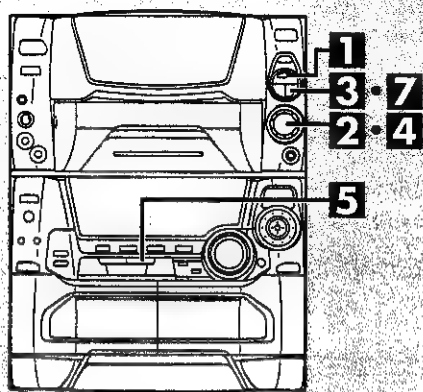
To find a specific song (Song search) B

Note
This function only works with a CD-TEXT disc that is currently playing.

1 Press DISC/TRACK to select the track selection mode.
(The indicator illuminates with an orange color.)

2 Press TEXT MODE to select "SONG", and turn JOG to select the desired song title.

To playback the song
Press ▶/ІІ/∧ before the song name stops flashing.
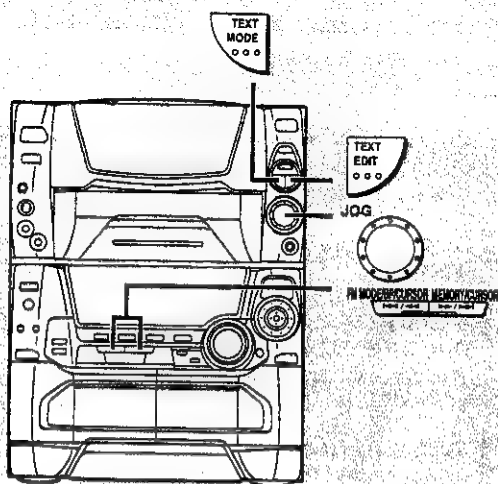
CD-TEXT function

To name a CD

You can enter an album name containing up to 32 characters for each of the CDs in the changer.

1 In the stop mode
Press DISC/TRACK to select the CD selection mode.
(The indicator illuminates with a green color.)

2 Select the disc you want to name by turning JOG.

3 While the CD number is flashing (approx. 10 seconds)
Press TEXT EDIT.
The cursor will start flashing when the changer is in the text edit mode.

4 Turn JOG to select the first character.
Select from the following letters and symbols.
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
(space)
! " # $ % & ' ( ) * + , – . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @

Note
● "A" is displayed when JOG is first turned, then the characters change in the above order.
● Letters and symbols appearing on the display may vary slightly from the printed listing.

5 Press ▶▶/▶▶I.
This enters the selected character and moves the cursor to the next character space.

6 Repeat steps 4 and 5 to enter characters.

7 Press TEXT EDIT.
(The album name is entered into memory and the changer goes out of text edit mode.)
The album name you entered flashes for 10 seconds then the display returns to the mode it was in previous to this operation.

Note
If you press ■ during text edit mode, the characters that were entered will be cleared and the changer will return to the previous mode.
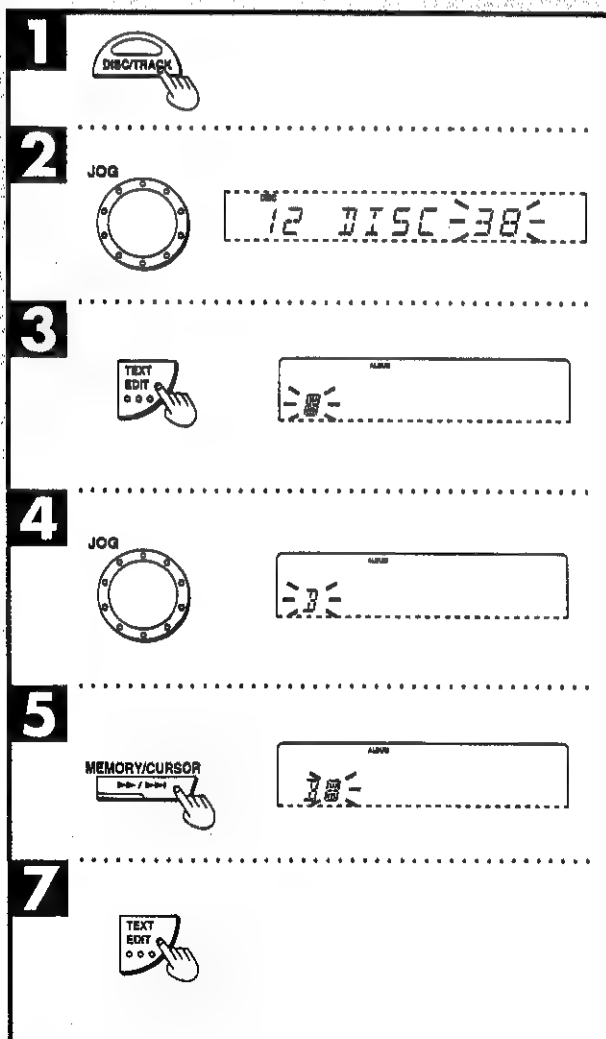
CD-TEXT function

To change an album name you have entered

1 Turn JOG to select the album title to be changed.

2 While the album title is flashing
Press TEXT EDIT.
The first character flashes.

3 Press I◄◄/◄◄ or ►►/►►I to select the character you want to change.

4 Turn JOG to select the new character.

5 Press TEXT EDIT.

To clear an album name you have entered

1 Turn JOG to select the album title to be cleared.

2 While the album title is flashing
Press TEXT EDIT.

3 **Press TEXT MODE for about 5 seconds.**
"TEXT CLEAR" appears on the display and the album name is cleared.

■ Listening to Tapes
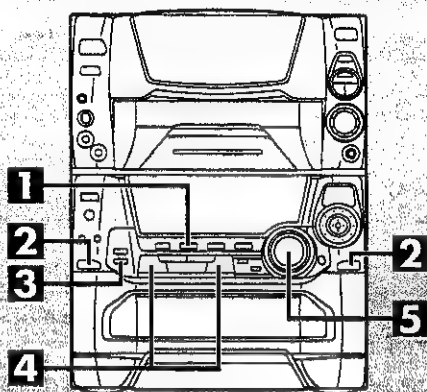
Types of tapes which can be played correctly:
The unit automatically identifies the type of tape.

|	
NORMAL POSITION/TYPE I	O
HIGH POSITION/TYPE II	O
METAL POSITION/TYPE IV	O

You can use either deck 1 or deck 2 for tape playback.

1 Press TAPE.
The power will come on automatically.

2 Press DECK 1 ▲ OPEN or DECK 2 ▲ OPEN and insert the tape.
Insert the tape with the exposed tape facing down.
Close the holder by hand.

3 Press REV MODE to select the reverse mode.
Every time you press the button;

⇌→⇌⊃→⊂⇌⊃

⇌: One side is played, then playback stops automatically.
⇌⊃: Both sides (front side→reverse side) are played one time each, then playback stops automatically.
⊂⇌⊃: Both sides are played 8 times each, then playback stops automatically.

4 Press ◄ or ► to start playback.
►: The forward side (front side) will play.
◄: The reverse side will play.
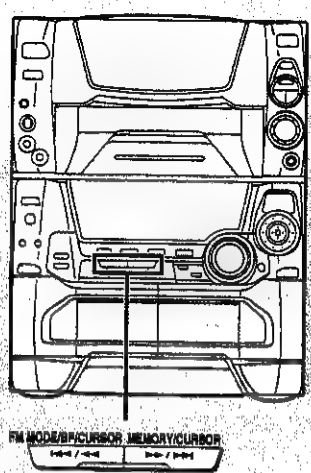
5 Adjust the volume level.

To stop tape playback
Press ■.

To change the deck to be used [A]
Press TAPE DECK 1/2 to select the deck you want to use when you load cassettes into both decks.

To listen to 2 tapes consecutively
Load a tape into each deck and select ⊂⇌⊃. Both tapes will be played 8 times each.

Note
Playback is interrupted while playing back tapes, if you open the other deck.
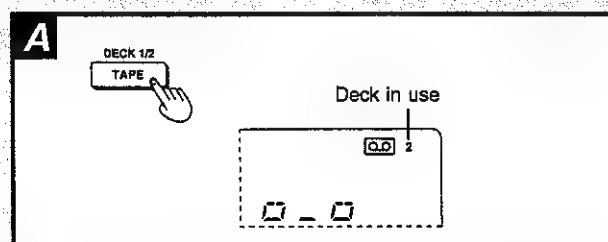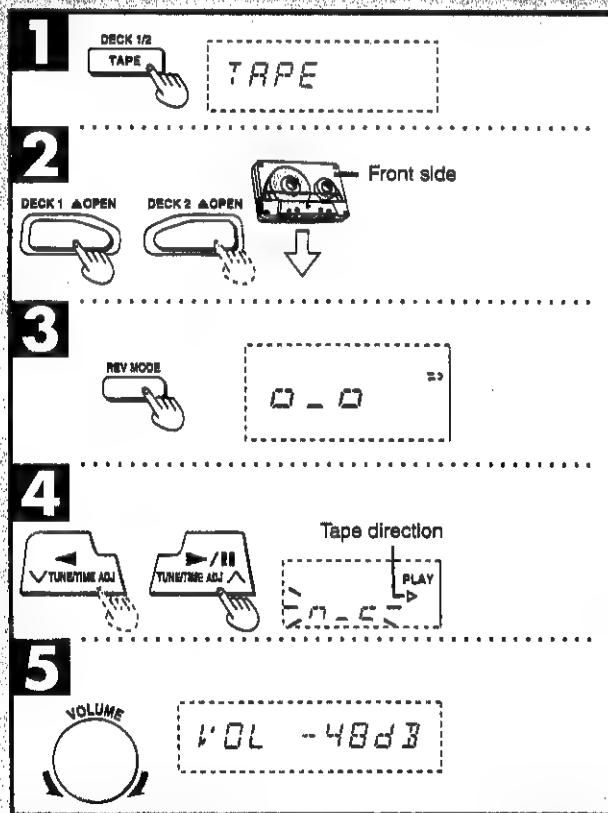
To fast-forward or rewind the tape

Press I◀◀/◀◀ or ▶▶/▶▶I in the stop mode.

Tape direction	To rewind	To fast-forward
"▶"	I◀◀/◀◀	▶▶/▶▶I
"◀"	▶▶/▶▶I	I◀◀/◀◀

To find the beginning of a program (TPS: Tape Program Sensor)

Press I◀◀/◀◀ or ▶▶/▶▶I during play.

Tape direction	To play the current tune from the beginning	To play the next tune from the beginning
"▶"	I◀◀/◀◀	▶▶/▶▶I
"◀"	▶▶/▶▶I	I◀◀/◀◀

Note

The TPS function searches for silent parts of about 4 seconds in length which are normally found between tunes. As a result, it may not function properly in the following cases
● With short silent parts
● When noise occurs between tunes
● With silent parts found within tunes

FM MODE/BP/CURSOR MEMORY/CURSOR
I◀◀/◀◀   ▶▶/▶▶I

■Enjoying Sound with DOLBY PRO LOGIC
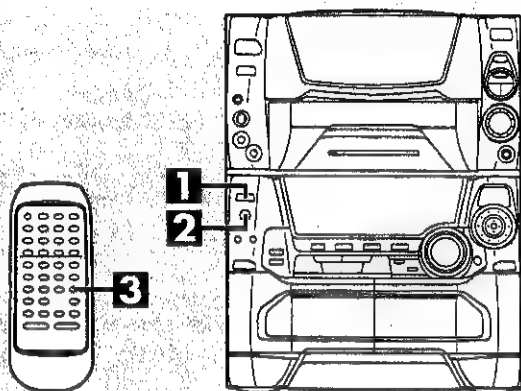
Dolby Pro Logic lets you enjoy movie software (video tapes and laser discs) in your home with the same powerful stereophonic effect found in movie theaters.

> Manufactured under license from Dolby Laboratories Licensing Corporation.
> DOLBY, the double-D symbol ▯▯ and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.

Setting the center mode and adjusting speaker output level

Note
Do the adjustments from the position where you would normally be listening.

1 Press DOLBY PRO LOGIC to turn on the DOLBY PRO LOGIC system.
The button lights up.
Press once again to turn it off.

2 Press CENTER MODE to select "NORMAL".
When the button is pressed, the current center mode is displayed.
Pressing it again changes the center mode.

NORMAL
When the center speaker is smaller than the front speakers.

WIDE
When the center speaker is the same size or larger than the front speakers.

PHANTOM
When no center speaker is connected.

Note
In the PHANTOM mode, the sound which would have been sent to the center speaker is divided equally between the left and right front speakers.

3 by remote control only
Press TEST to output a test signal.
The speaker outputting the test signal is displayed while the test is running.
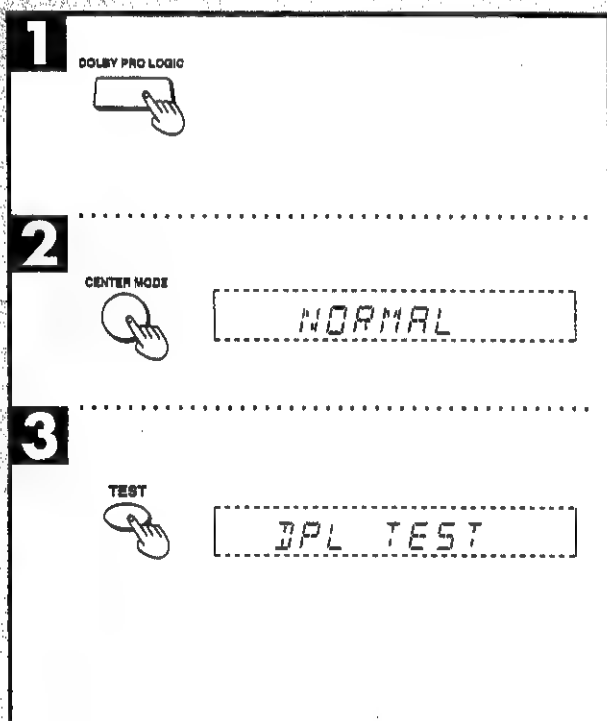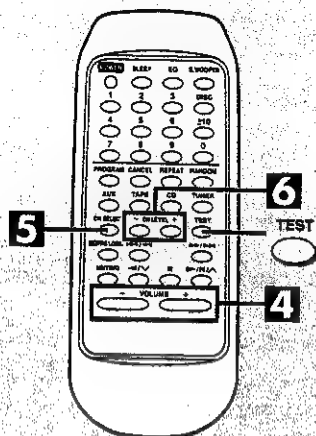L: Front speaker (Left)
C: Center speaker
R: Front speaker (Right)
S: Surround speakers

In the PHANTOM mode, the center speaker is OFF, so the test signal is not output and "C" is not displayed.

4 `by remote control`
Press VOLUME (−) or (+) to set the volume level normally used for enjoying the source.

The following steps are for setting the output level of the front speakers and the center/surround speakers to the same listening level.

5 `by remote control only`
Press CH SELECT to select the center or surround speakers.

6 `by remote control only`
Press CH LEVEL (−) or (+) to adjust the output level.
Adjust the output level of each speaker from the listening position until they are all the same.
−: Decrease the output level.
+: Increase the output level.
Output level can be varied within a range of −12 dB to +12 dB with front speaker output level serving as the zero point.
The test signal is output only by the speaker you are now adjusting and does not repeat the sequence until adjustment are complete.


To stop the test signal
Press TEST.

To turn off the DOLBY PRO LOGIC systems
Press DOLBY PRO LOGIC.
Press once again to turn it on.
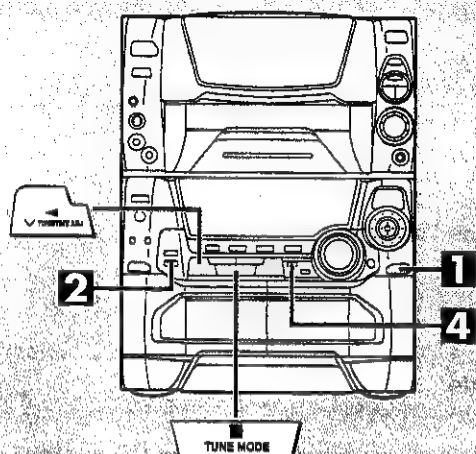
Enjoying the desired source with DOLBY PRO LOGIC 🅰

1 **Press DOLBY PRO LOGIC to turn on the DOLBY PRO LOGIC system.**
The button lights up.
Press once again to turn it off.

2 **Select and start the desired source.**

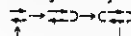**To turn off the DOLBY PRO LOGIC systems**
Press DOLBY PRO LOGIC.
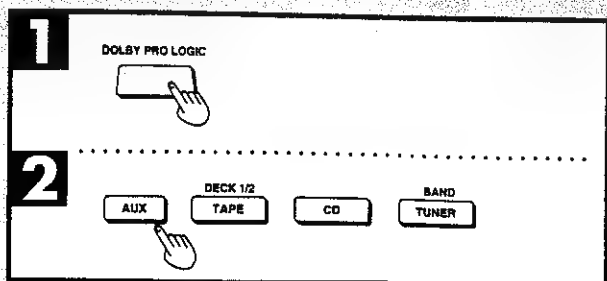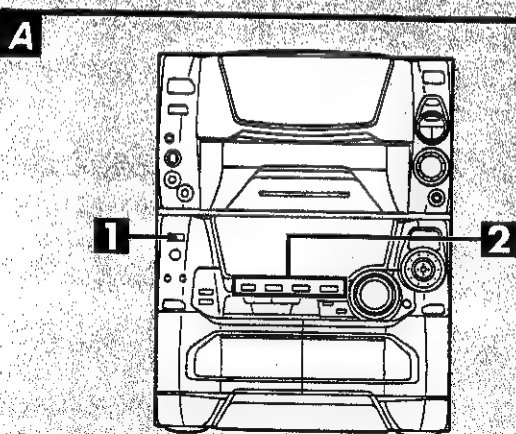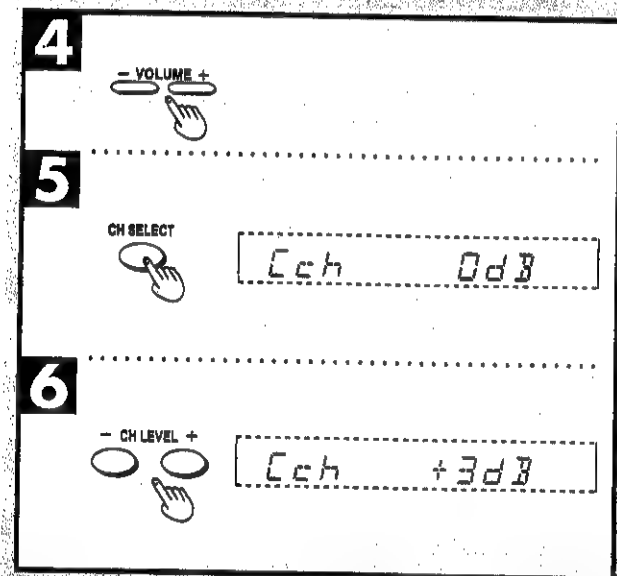
■ Recording from Radio Broadcasts

1 Press DECK 2 ▲ OPEN and insert the tape.
Close the holder by hand.
Tape direction is automatically set to "▶".

2 Press REV MODE to select the reverse mode.
Every time you press the button;
⇄ → ⇄⊃ → ⊂⇄⊃

⇄: One side is recorded, then recording stops auto-
matically.
⇄⊃, ⊂⇄⊃: Both sides (front side→reverse side) are recorded,
then recording stops automatically.

3 Select a radio station.

4 Press ● REC/STOP to start recording.
If you selected ⊂⇄⊃ in step 2, the direction will automatically
change to ⇄⊃ when recording starts.

To stop recording
Press ● REC/STOP again.
Recording can also be stopped by pressing ■.

To start recording on the reverse side
Load a tape and change the tape direction as following.
1. Press TAPE DECK 1/2 and select tape deck 2.
2. Press ◄ and immediately thereafter ■. The tape direction will be
shown as "◄".

To record from a specific point on a tape
Before recording, advance the tape to the point from where you
want to start recording.

To cut an unnecessary part while recording
1. Press ● REC/STOP during the unnecessary part. The cassette
deck will go into the stop mode.
2. Press ● REC/STOP to resume recording again. Recording will
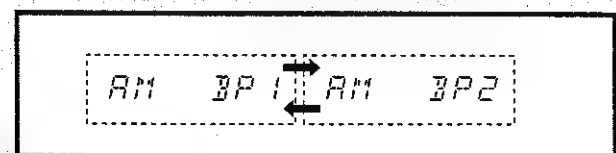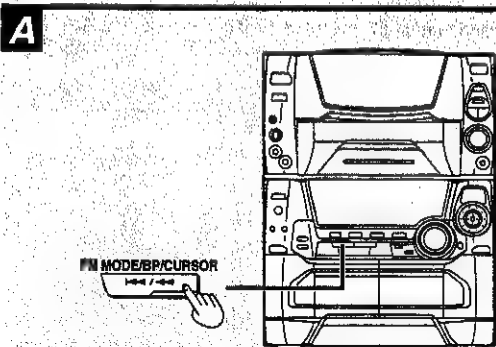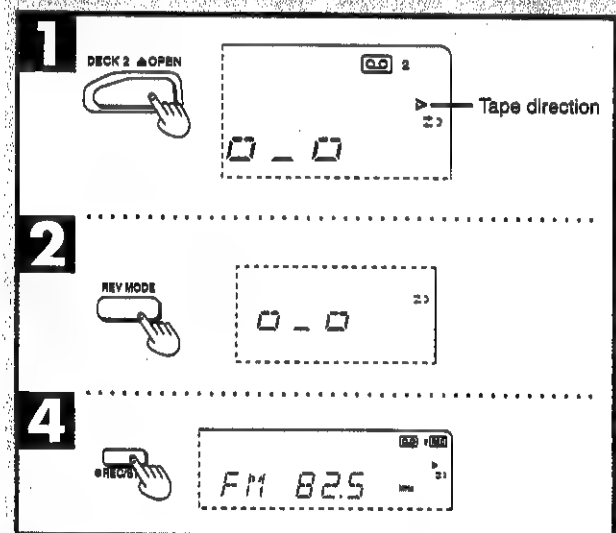continue in the same direction as before.

Note
When recording an AM broadcast, sound is momentarily interrupted
when you start and stop the recording.

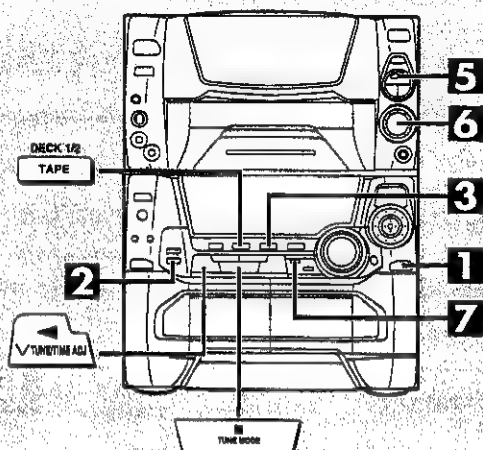> **To reduce noise while AM recording
> (Beat proof function) A**

Press FM MODE/BP while recording.
Each time you press the button, BP 1 and BP 2 will be displayed
alternately.
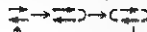Select the position with the least noise.

■ Recording from CDs

1 Press DECK 2 ▲ OPEN, and then insert the tape.
Close the holder by hand.
Tape direction is automatically set to "▶".

2 Press REV MODE to select the reverse mode.
Every time you press the button;
⇄→⇄ᗢ→Cᗢ

⇄: One side is recorded, then recording stops automatically.

⇄ᗢ, Cᗢ: Both sides (front side→reverse side) are recorded, then recording stops automatically.

3 Press CD.

4 Set CDs in the rack.

5 Press DISC/TRACK to select the CD selection mode.
(The indicator illuminates with a green color.)

6 Turn JOG to select the desired CD number.

7 While the CD number is flashing (approx. 10 seconds)
Press ● REC/STOP to start recording.
● If you selected Cᗢ in step 2, the direction will automatically change to ⇄ᗢ when recording starts.
● The recording will proceed from the first track on the selected CD.
● The tape deck stops automatically when the CD is finished.

To stop recording
● To add a 4 second silent interval before stopping.
Press ■. The CD will stop automatically too.
● To stop recording without a silent interval.
Press ● REC/STOP. The CD will stop automatically too.

To start recording on the reverse side
Load a tape and change the tape direction as following.
1. Press TAPE DECK 1/2 and select tape deck 2.
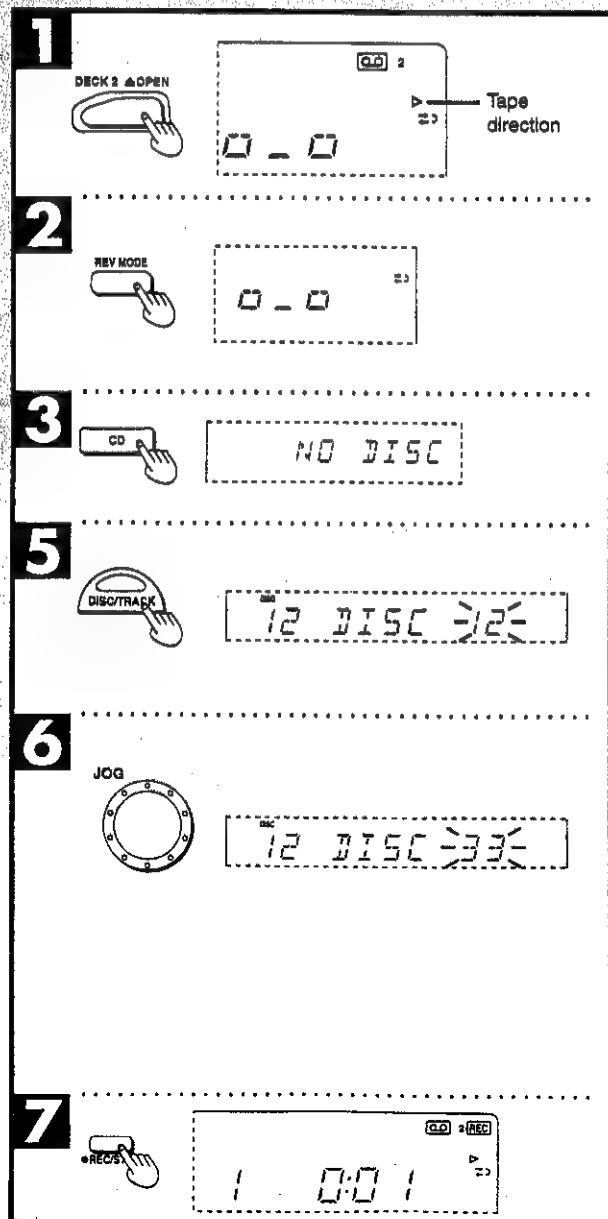2. Press ◀ and immediately thereafter ■. The tape direction will be shown as "◀".
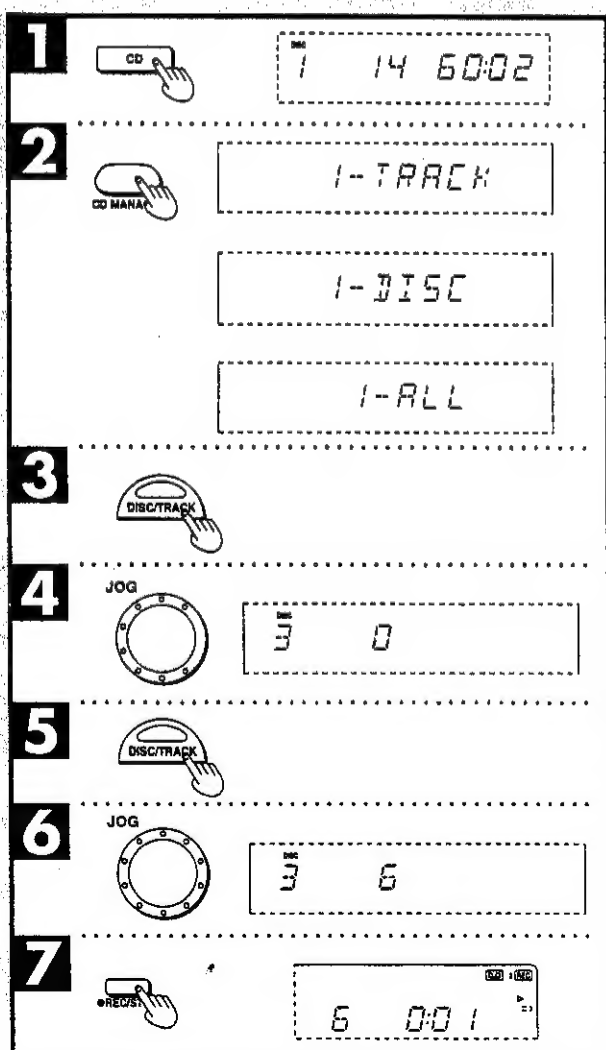
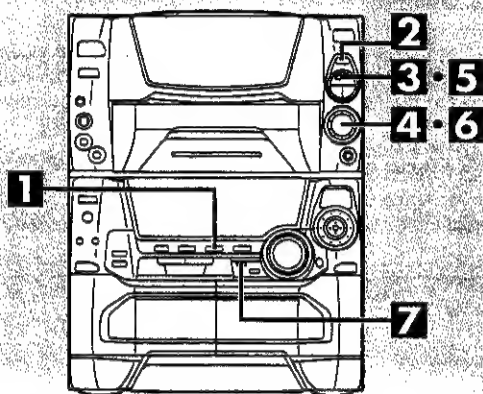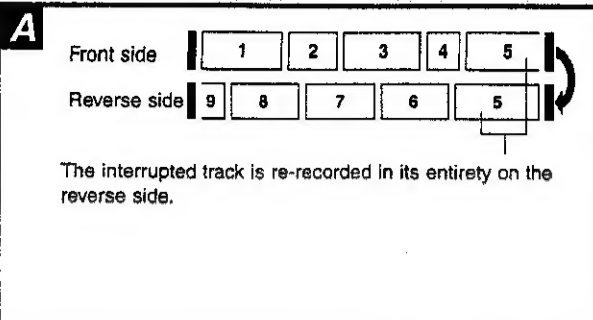**To record from a specific point on a tape**
Before recording, advance the tape to the point from where you want to start recording.

To record programmed tracks

1. After step 4, program the track you want.
2. Press ● REC/STOP to start recording.

1
DECK 2 ▲OPEN
Tape direction
☐ _ ☐

2
REV MODE
☐ _ ☐

3
CD
NO DISC

5
DISC/TRACK
12 DISC 12

6
JOG
12 DISC 33

7
●REC/S
1 0:01

A

Front side	1	2	3	4	5

Reverse side	9	8	7	6	5

The interrupted track is re-recorded in its entirety on the reverse side.

To record special CDs and tracks (CD MANAGER function)

This function makes it easier for you to select special CDs and tracks from amongst those loaded in the player.
- While recording, if a track is cut off in the middle at the end of the front side, it is re-recorded from the beginning, on the reverse side. **A**
- At the end of the reverse side recording stops and the track playing at that time is interrupted.

Before recording
Prepare the tape you want to use.

1 Press CD.
Ensure CD is stopped.

2 Press CD MANAGER to select the desired mode.
Every time you press the button;
1-TRACK→1-DISC→1-ALL
↑————NORMAL←————
(OFF)

1-TRACK: Only one particular track is recorded.
1-DISC: The tracks on only one particular disc are recorded.
1-ALL: The same track numbers on each of the CDs are recorded in succession.
(NORMAL: The original display is restored in about 3 seconds.)

3 Press DISC/TRACK to select the CD selection mode.
(The indicator illuminates with a green color.)

4 Turn JOG to select the desired CD number.
Note
This step is not required if 1-All was selected in step 2.

5 Press DISC/TRACK to select the track selection mode.
(The indicator illuminates with an orange color.)

6 Turn JOG to select the desired track number.
Note
This step is not required if 1-DISC was selected in step 2.

7 Press ● REC/STOP to start recording.

To stop recording
- To add a 4 second silent interval before stopping
  Press ■. The CD will automatically stop too.
- To stop recording without a silent interval
  Press ● REC/STOP. The CD will stop automatically too.

■ Tape to Tape Recording
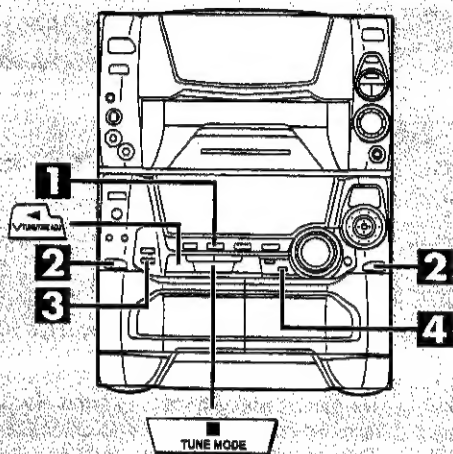
The recording level will be recorded as they are on the tape being played back.

1 Press TAPE.

2 Press ▲ OPEN on both decks and insert the tapes.
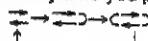For playback: Into deck 1
For recording: Into deck 2
Close the holders by hand.
Tape direction is automatically set to "▶".

3 Press REV MODE to select the reverse mode.
Every time you press the button;
⇄→⇄Ɔ→⊂⇄Ɔ

⇄: One side is recorded, then recording stops automatically.
⇄Ɔ, ⊂⇄Ɔ: Both sides (front side→reverse side) are recorded, then recording stops automatically.

4 Press TAPE EDIT to start recording.
•If you selected ⊂⇄Ɔ in step 3, the direction will automatically change to ⇄Ɔ when recording starts.

To stop recording:
Press ■.
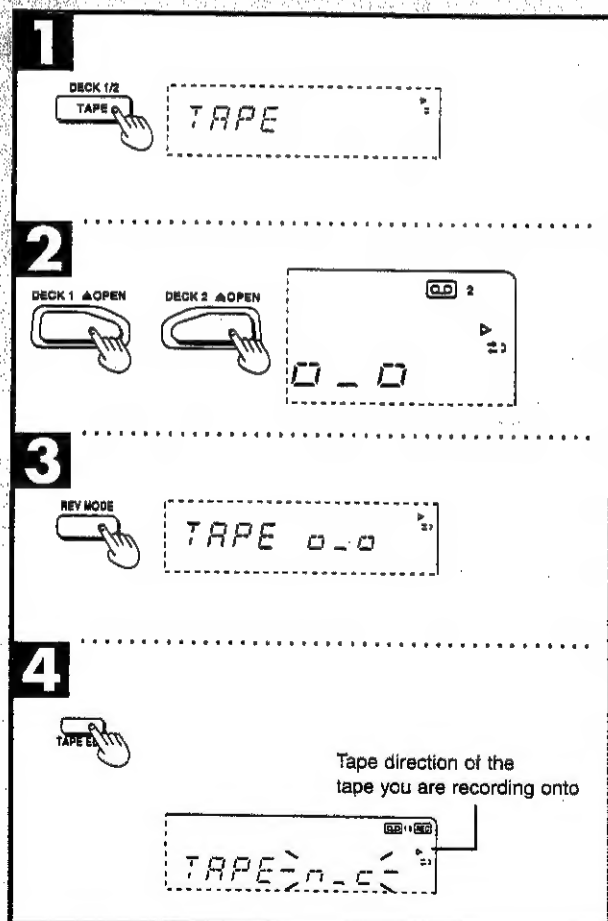Both decks will stop.

To start recording on the reverse side
Load a tape and change the tape direction as following.
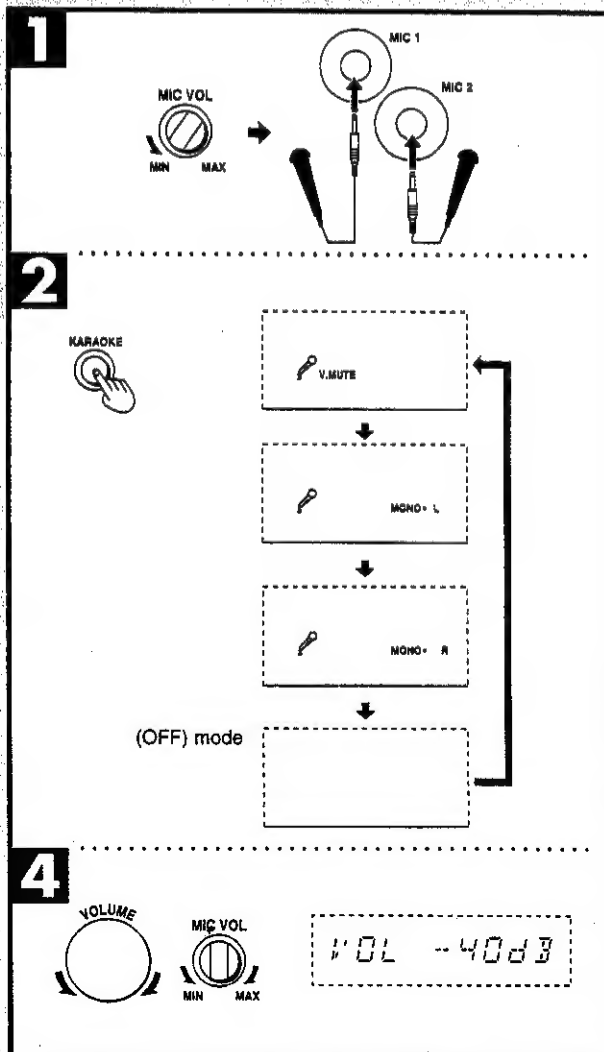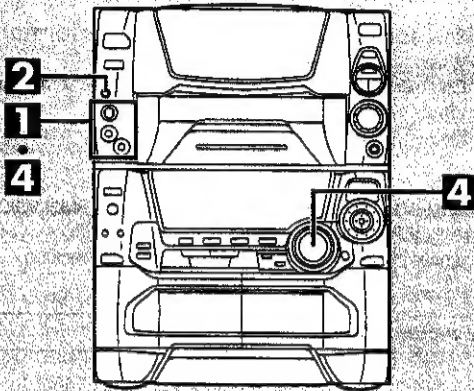1. Press TAPE DECK 1/2 and select tape deck 2.
2. Press ◀ and immediately thereafter ■. The tape direction will be shown as "◀".

To record from a specific point on a tape
Before recording, advance the tape to the point from where you want to start recording.

1 DECK 1/2 TAPE — `TAPE`

2 DECK 1 ▲OPEN DECK 2 ▲OPEN — `O_O`

3 REV MODE — `TAPE o_o`

4 TAPE E — Tape direction of the tape you are recording onto — `TAPE⟩n_c`

■ Singing Along with KARAOKE

This system lets you enjoy KARAOKE with audio CDs and audio tapes.

1 **First, lower volume with MIC VOL, then connect the microphone(s).**
Plug type: 3.5 mm (¹⁄₈″) monaural

2 **Press KARAOKE to select the voice mode.**
Every time you press the button;
V•MUTE→MONO•L→MONO•R
↑————————(OFF)————————┘

Voice mode selection
If you want to use the KARAOKE function, check first whether or not your software is formatted for KARAOKE and then select the voice mode as indicated below.

○: Appropriate
●: For practice, etc.

Software Voice modes	KARAOKE		Non-KARAOKE
	Sound multiplex	Stereo	
(OFF)	● (Background music+Voice)	○	● (For singing along)
V•MUTE	—	—	○
MONO•L	○ (Background music)	—	—
MONO•R	● (Voice)	—	—

Note
A bar is indicated in the above table when the voice mode is least effective. It is better to avoid using the mode in such cases.

V.MUTE function
The voice portion of the track is blocked out but not the background music.
You need software recorded in stereo sound if you want to use the voice mute function. Voice and/or static may be reproduced with the following types of software.
●Software recorded in monaural
●Classical music, or works performed by a limited number of instruments
●Chorus works or duets

3 **Start the source (CD, etc.).**

4 **Adjust volume with VOLUME and MIC VOL and sing along.**

To cancel the KARAOKE
Press KARAOKE to select "(OFF)" mode.

Note
●If a strange noise (squealing or howling) is emitted during use, move the microphone away from the speakers, or turn down the microphone volume.
●When you are not using the microphone, disconnect it from the MIC jack, and turn down the microphone volume level to MIN.
●Sound quality and sound field can be adjusted when using KARAOKE but recording will be uneffected.

TUNE MODE
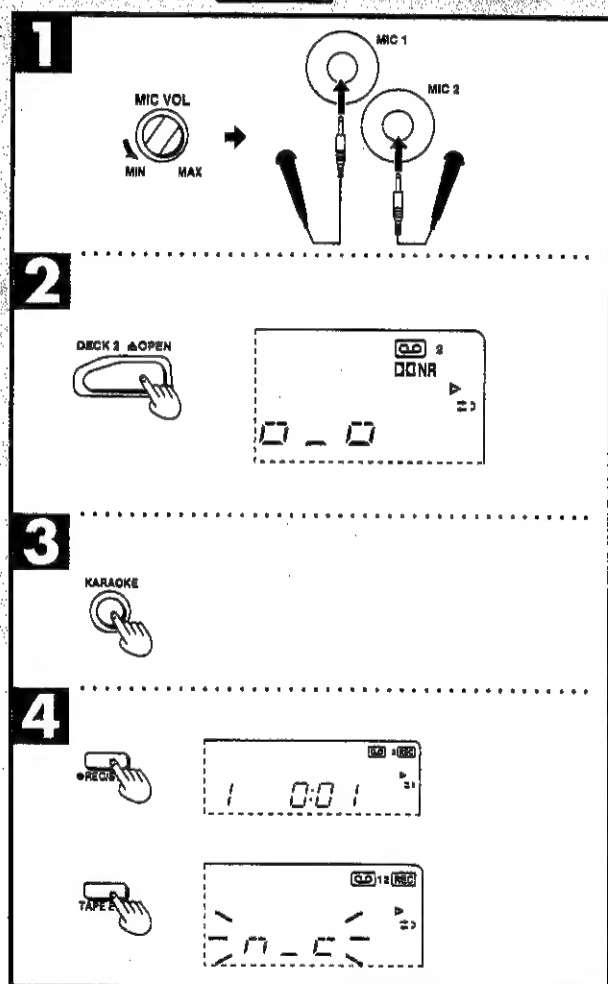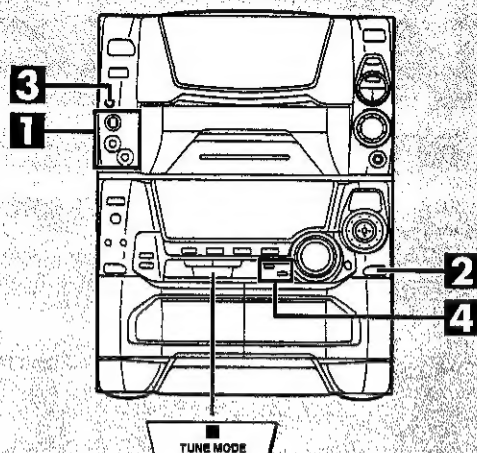
To record your "KARAOKE" performance

1 First, lower volume with MIC VOL then, connect the microphone(s).

2 Press DECK 2 ▲ OPEN to insert the tape and then select the reverse mode.

3 Press KARAOKE to select the voice mode.

4 Start recording and KARAOKE performance.
● When singing with CDs
Press ● REC/STOP and start KARAOKE performance.
● When singing with tapes
Press TAPE EDIT and start KARAOKE performance.

Note
● To playback the recorded tape, be sure to press KARAOKE to select the "(OFF)" mode.
● You cannot play or record KARAOKE with radio backing.

To record your voice

1. First, lower volume with MIC VOL then, connect the microphone(s).
2. Press DECK 2 ▲ OPEN to insert a tape and then select the reverse mode.
3. Press TAPE.
4. Press ● REC/STOP to start recording.
5. Speak through the microphone and adjust volume with VOLUME and MIC VOL.